

# MSP58 (B-5): sc-376569

## BACKGROUND

MSP58, also known as MCRS1 (microspherule protein 1), P78 or INO80Q, is a 462 amino acid protein that localizes to the nucleus and contains one FHA domain. Expressed at high levels during the S phase of the cell cycle and present in testis, prostate, thymus, spleen and colon, MSP58 functions to modulate the transcriptional activity of Daxx (a transcriptional repressor) by recruiting Daxx to the nucleolus. Additionally, MSP58 may play a role in the inhibition of TERT telomerase activity, further implicating MSP58 as an important protein in transcriptional regulation. The gene encoding MSP58 maps to human chromosome 12q13.12 and is expressed as multiple alternatively spliced isoforms. Encoding over 1,100 genes within 132 million bases, chromosome 12 makes up about 4.5% of the human genome and is associated with hypochondrogenesis, achondrogenesis and Kniest dysplasia.

## CHROMOSOMAL LOCATION

Genetic locus: MCRS1 (human) mapping to 12q13.12; Mcrs1 (mouse) mapping to 15 F1.

## SOURCE

MSP58 (B-5) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of MSP58 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>3</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-376569 X, 200 µg/0.1 ml.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

MSP58 (B-5) is recommended for detection of MSP58 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MSP58 (B-5) is also recommended for detection of MSP58 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for MSP58 siRNA (h): sc-75838, MSP58 siRNA (m): sc-75839, MSP58 shRNA Plasmid (h): sc-75838-SH, MSP58 shRNA Plasmid (m): sc-75839-SH, MSP58 shRNA (h) Lentiviral Particles: sc-75838-V and MSP58 shRNA (m) Lentiviral Particles: sc-75839-V.

MSP58 (B-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

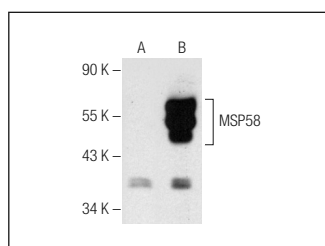
Molecular Weight of MSP58: 58 kDa.

Positive Controls: human MSP58 transfected 293T whole cell lysate, NIH/3T3 whole cell lysate: sc-2210 or KNRK whole cell lysate: sc-2214.

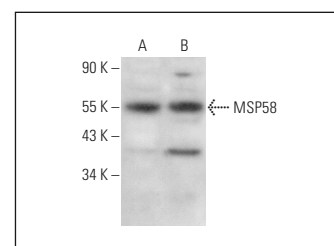
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



MSP58 (B-5): sc-376569. Western blot analysis of MSP58 expression in non transfected (A) and human MSP58 transfected (B) 293T whole cell lysates.



MSP58 (B-5): sc-376569. Western blot analysis of MSP58 expression in NIH/3T3 (A) and KNRK (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Liu, M., et al. 2015. The candidate oncogene (MCRS1) promotes the growth of human lung cancer cells via the miR-155-Rb1 pathway. *J. Exp. Clin. Cancer Res.* 34: 121.
- Lin, W., et al. 2016. Expression of 58-kD microspherule protein (MSP58) is highly correlated with PET imaging of tumor malignancy and cell proliferation in Glioma patients. *Cell. Physiol. Biochem.* 38: 635-645.
- Zhang, Y., et al. 2016. miRNA-129-5p suppresses cell proliferation and invasion in lung cancer by targeting microspherule protein 1, E-cadherin and vimentin. *Oncol. Lett.* 12: 5163-5169.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.